5.5 Reach 3

Surveys of Reach 3 (RM 19.1 – 15.6) were completed on September 18 and 19, 2003. Reach 3 is generally distinguished from the other reaches by a prominent set of clay layers in the strata underlying the floodplain. Upstream of where the river cuts through these clay layers the channel depth is greatly reduced, whereas just downstream from the clay layer zone, channel depth increased dramatically. Bank erosion in this reach also appears to be naturally controlled by the presence of resistant clay layers. As is the case throughout the study area, riprap is highly visible on most of the outside bends in this reach. Vegetation is dominated by Himalayan blackberry and reed canarygrass (Photo 5-10). Woody debris is fairly common throughout this reach, but there are few opportunities for future wood recruitment because of a paucity of trees along the banks. Much of the wood in this reach appeared to have been transported into the reach from upstream because many of the pieces were broken or shattered portions of logs. Moreover, wood in this reach is generally smaller than the wood seen in the other reaches. Reach 3 contains the crossing at the 212th Street bridge (Photo 5-11).

Table 5-3 provides summarizes habitat information collected in Reach 3. The total length of this reach was 3.5 miles (5.6 km) and the dominant habitat type was glides. The mean OHWM width was 26 m, and the mean wetted width was 23 m. There were eight pools in this reach, including large and small pools, for an average of 2.3 pools per mile and a total pool frequency of 27 CW/pool (Figure 5-20). The dominant forming feature of most of the large pools in Reach 3 was riprap. There were no existing or potential gravel storage areas in Reach 3.

Figure 5-21 shows the vegetative characteristics for Reach 3. There was almost no overhanging vegetation in the reach, as observations ranged from 0 to 3 percent, with a median value of 0 percent. Overall, vegetation in Reach 3 was low quality and was dominated by invasive species. The median canopy cover was 34 percent.

There were 249 pieces of wood identified in Reach 3; these were dominated by medium-sized pieces, mostly without rootwads (Figure 5-22). There were no key pieces in Reach 3 and no log jams.

Figure 5-23 shows the extent and type of shoreline armoring present in Reach 3. As in most of the rest of the survey area, riprap was the dominant armoring type.

There were several potential restoration opportunities in Reach 3 (Figure 5-24). Near stations 3-4 to 3-12, several opportunities exist for larger-scale restoration of channel, floodplain, and riparian vegetation. At station 3-1 and extending upstream to station 2-39, and at stations 3-14 to 3-19, opportunities exist for improving riparian vegetation quality.

Photo 5-10. Invasive vegetation and high banks typical of Reach 3, Station 5.

Photo 5-11. The 212th Street bridge crossing at Reach 3, Station 36 of the Lower Green River. The King County Rivers project on the right bank is typical of many other projects in the reach.

Table 5-3
Instream Habitat Summary Statistics for Reach3

Parameter	Result
Location	RM 19.1 to 15.6
Reach length	5.6 km (3.5 miles)
River discharge during surveys[1]	200 to 290 cfs
Number of stations	19
Number of stations at glide habitats	14
Number of stations at pool habitats	4
Number of stations at riffle habitats	0
Number of stations at run habitats	1
Average OHWM width (used in CW calculations)	26 m
Average wetted width	23 m
Total number of pools (large and small[2])	8
Total pool frequency (large and small)	27 CW/pool
Total number of pools per mile (large and small)	2.3
Number of large pools	5
Large pool frequency	44 CW/pool
Number of large pools per mile	1.4
Percent large pools by length	21%
Percent large pools by area[3]	16%
Dominant large pool forming factor	Riprap
Large Pools formed by wood	0
Number of small pools[2]	3
Small pool frequency	73 CW/pool
Number of small pools per mile	0.9
Total wood pieces (logs and rootwads)	249
Total wood pieces frequency[1]	1.1 pieces per CW

Fig 5-20

Fig 5-21

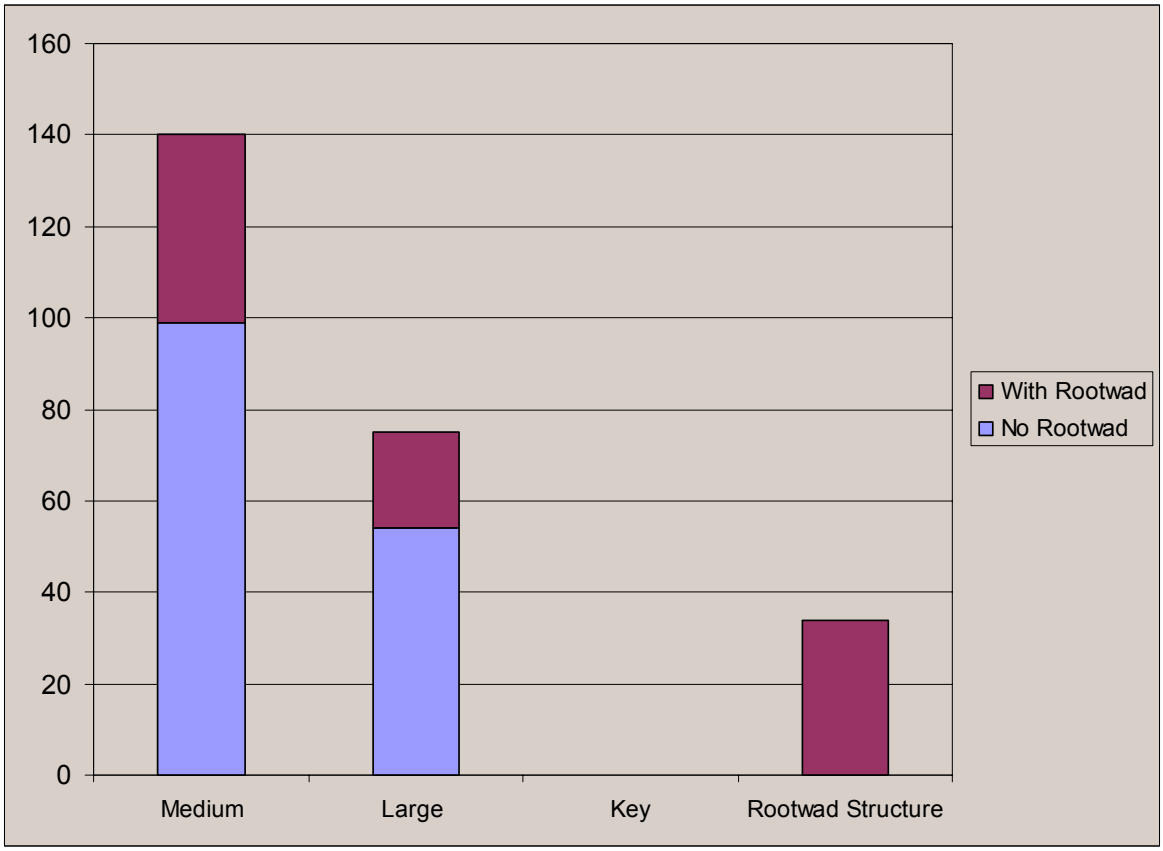

Figure 5-22. Numbers of wood pieces and distribution of size and type in Reach 3.

Fig 5-23

Fig 5-24